

INDIGO



magazine

HERPING AROUND

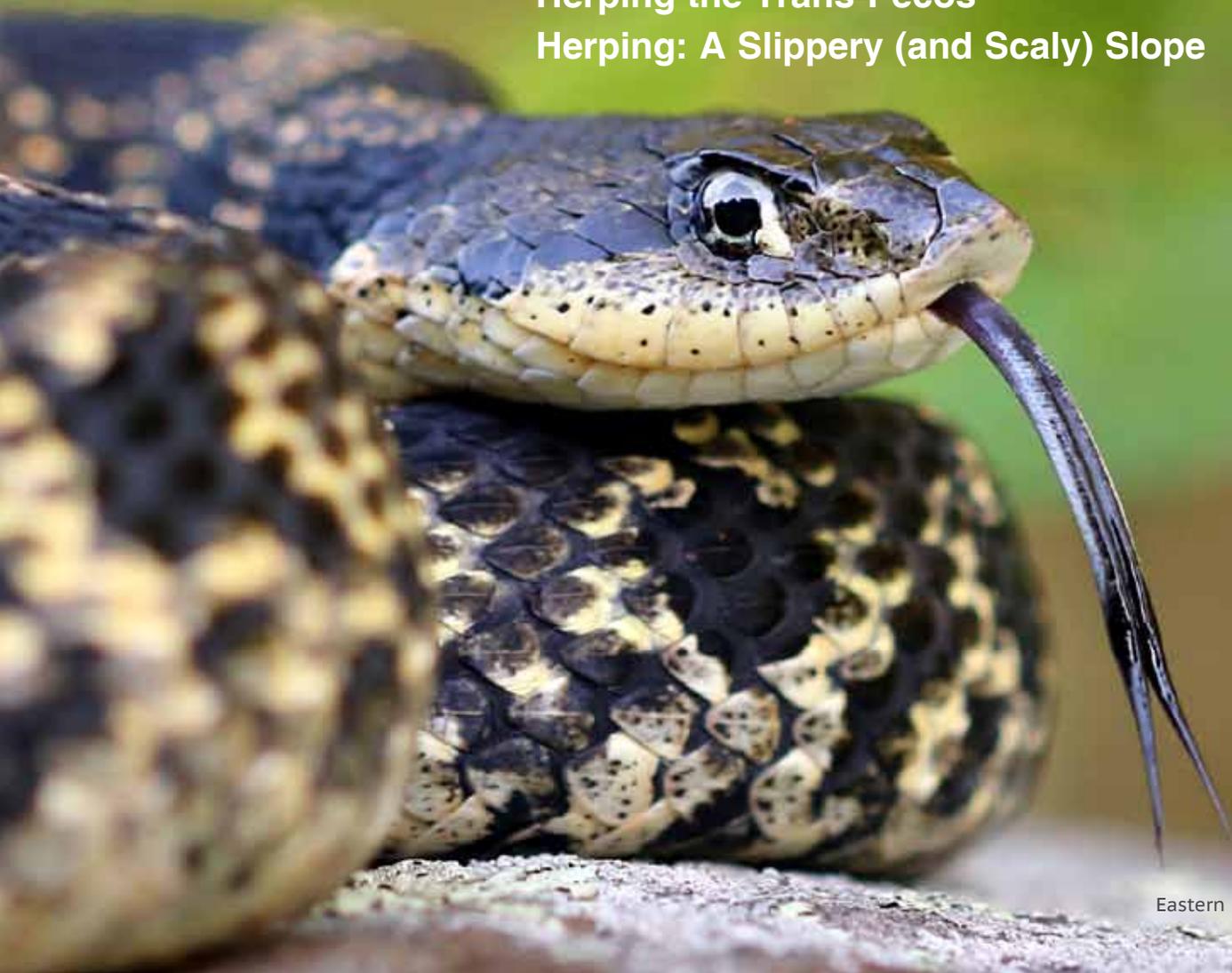
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Go into almost any town in America and ask people if they know what a birder is. Many people may not understand why, but they know that there are groups of people who like to go out and look at birds through binoculars. If you told them you are a field herper however, you are likely to get some very strange looks. But we herpers are a growing group of people. There are thousands of people who enjoy spending their free time out in the wild looking for reptiles and amphibians; people who travel to the far ends of the world to find a particular rare species; people who are submitting their data to help ensure a future for these species.

For most of us there is something, maybe a place or a species, which began our interest in field herping. For me it is a small conservation property in New England. A property that my family historically owned and donated to a nonprofit long ago. This property has extensive beaver wetland complexes, vernal pools, upland Northern Hardwood and Boreal habitats. I spent years learning every square inch of that place, finding an abundance of Pickerel Frogs, Jefferson Salamanders, and Snapping Turtles. Over the last 20 years, I have spent time looking for reptiles and amphibians in many areas of the world, but I still have great memories of my time on this small property in New England as some of the best of my adventures. I had the opportunity to go back there last summer and found a Pickerel Frog right where I had left them over twenty years ago!

Over time, my field herping interests have changed and these days I am mostly interested in seeing vipers, particularly rattlesnakes, in the wild. I keep a running list of all the viper species I have seen in the wild and

message from our CEO



Photo: Tammi Nowak

make an effort to add to that list every chance I get. These days, as part of our Appalachian Highlands Initiative, I spend a great deal of time in the mountains of Georgia and North Carolina looking for rattlesnakes and copperheads.

Field herping can be a very fun and rewarding form of recreation. It gets you outside in wild places observing wildlife. But as this field grows it is important for all of us to take responsibility and make sure our actions are not hurting the resources we are out there to enjoy. Replace rocks and logs you turn, don't handle animals unless it is legal to do so, make sure you take precautions against spreading disease, and be sure

to submit the data you collect to state and federal agencies so it can be used for conservation and management. Field herping is a great way to spend your free time, I encourage everyone to get out into the wild whether it be alone, with friends, or better yet take a child and enjoy the amazing diversity of reptiles and amphibians your area has to offer. 🦎

Field Herping

with



One of my earliest memories is jumping out of the car on the long winding road up to Mountain Lake Biological Station to grab a large ratsnake that was soaking up some sun on the warm pavement. I had handled snakes before since both my parents were biologists, but they had neglected to inform me, or more likely I just forgot, that sometimes wild snakes will bite. This particular ratsnake did not appreciate being grabbed by an overeager six-year-old and promptly let me know about it. I fondly remember the pain and the blood from my first snake bite. Little did I know that this experience and a childhood spent outside would push me towards a career working with reptiles and amphibians.



Conservation in Mind

by Houston Chandler

King Snake. Photo: Noah Fields

Herpetology is defined as the study of reptiles and amphibians. These two distantly related groups are lumped together because Carl Linnaeus, who originally classified them, had a dislike for what he referred to as “creeping animals.” He even described them as “foul and loathsome.” Despite being outdated, this classification has stuck, and reptiles and amphibians are still commonly referenced together as herpetofauna or, informally, herps. Herpetofauna attract a diverse group of people for a variety of reasons, including their conservation status, usefulness as model organisms in scientific research, popularity as pets, potent venom, and the ability to search for and capture them in the wild.



Gloves are necessary when handling snakes with disease symptoms to limit the spread of disease. Photo: Houston Chandler

Field herping means different things to different people, but it generally refers to searching for reptiles and amphibians in their natural habitats. Photographing and catching animals is common but not required. Herpers (people who enjoy field herping) are generally attracted to reptiles and amphibians from a young age, and snakes are often a first love. Field herping is like bird watching in many ways, with ample time spent searching for rare species or species that have not been previously observed. Many herpers keep some sort of life list of the species that they have seen. Field herping is populated by a passionate group of people who are fascinated by reptiles and amphibians, but there is often a disconnect between herping as a hobby and the conservation concerns

facing a group of animals that are declining worldwide. Here, I discuss some of the many ways to minimize the impacts of field herping on wild amphibian and reptile populations while promoting the conservation of these often imperiled groups.

Limiting Disease Spread

Amphibian and reptile species around the world are declining from a myriad of threats including, but not limited to, habitat loss and alteration, pollution, climate change, and over collection for commercial trade (we will come back to that in a minute). In addition to these threats, it is hard to examine reptile and amphibian conservation without discussing the threats that both groups face from emerging diseases. Amphibians have been particularly

hard hit by the Chytrid Fungus, which has caused mass die-offs, population declines, and even extinctions. These declines have been so severe in some places that forests once full of frogs are now devoid of amphibian life. The Chytrid Fungus (caused by the pathogens *Batrachochytrium dendrobatidis* and *B. salamandrivorans*) is unfortunately not the only fungal pathogen affecting herpetofauna or even the only disease impacting amphibians. Snake Fungal Disease has now been found across the eastern United States and has been implicated in population declines of Timber Rattlesnakes (*Crotalus horridus*) in the northeast. In addition to fungal pathogens, other diseases such as Ranavirus and respiratory disease in tortoises are negatively impacting herpetofauna.



Timber Rattlesnake crossing a road. Photo: Ben Stegenga

The prevalence and diversity of diseases (both known and unknown) impacting herpetofauna populations makes it imperative to limit the spread of microbes between individuals and populations. Most herpetological research is now conducted using a standard set of decontamination protocols when handling multiple animals or moving between field sites, but field herpers have been generally slow to adopt these practices. Limiting contact with animals, sanitizing both hands and equipment after coming into contact with an animal, and keeping animals separate from one another are all important steps that can reduce disease transmission. An alcohol or bleach solution can be used to sanitize hands (disposable gloves are preferable), equipment, or

containers that come into contact with wild animals. Best practices include doing this between every animal but, at a minimum, sanitation should be done between each site. Shoes and boots can similarly be cleaned using a weak bleach solution, and dirt that collects on the bottom of footwear is a prime candidate for moving microorganisms across the landscape. Ultimately, the ever increasing mobility of people in the 21st century continues to increase the ease with which diseases and other microorganisms can spread between wildlife populations, but field herpers can and should actively work to minimize their contributions to this growing problem.

Respecting Animals and their Habitat

One of the major appeals of herping, and a major difference from other animal related hobbies like bird watching, is the ability to catch and hold most reptile and amphibian species. Even though this is often one of the things that draws people towards herpetology at a young age it is not always a positive aspect of field herping. Handling animals increases stress levels and can potentially have lasting impacts on animal behavior. As discussed above, handling also increases the chances of disease transmission. Venomous snakes rarely need to be handled in the field and doing so increases the likelihood of getting bitten because you are closer to and interacting with the snake. In many

instances animals can be observed and even photographed without direct handling, giving the observer a chance to view natural behaviors that may otherwise go unnoticed.

Other than road cruising, flipping cover objects is one of the most popular methods for locating many species of reptiles and amphibians. Cover objects come in all shapes and sizes, including rotting logs, large rocks, bark on dead trees, a piece of old tin, or even someone's old couch that was jettisoned beside a country road. Reptiles and amphibians spend time under cover objects to avoid predators, maintain their body temperature, and to forage for prey items that may be using the same cover. In certain habitats the number of available cover objects can limit population sizes and determine how individuals are distributed in their environments.

It is easy to forget that these cover objects represent an important habitat feature for many species. After flipping cover objects, they should be gently returned to their original positions, taking care not to squish any animals that were underneath them. In some cases, flipping cover objects may negatively impact the species that are using them and field herpers should be aware when it is best to avoid this activity. For example, hellbenders nest under large rocks in cool mountain streams and flipping these rocks during the nesting season can damage nests, lowering the survival of eggs and larva. In other cases, disturbing animals could expose them to predation or unfavorable environmental conditions that might negatively impact survival. Some types of cover can also be mostly destroyed

when searching under it for animals. This is especially true for loose bark on rotting trees. Special care should be taken to leave the habitat intact and to minimally disturb the animals that are relying on it.

Even though artificial cover objects generally attract animals and create additional habitat, it may not always be appropriate to set more out. Most people who are not herping do not want to see old tin, rotting carpet, or disintegrating couches when in the woods, especially on public lands. If placing artificial cover objects in the field, special care and discretion should be used to avoid putting them on public lands, on other people's property without permission, or in other areas where they may cause conflict.

Collecting and Relocating Animals

There is a long history of collecting animals from the wild, either to preserve as specimens or to keep as pets. Lady and gentlemen naturalists of the 18th and 19th centuries traveled the world collecting all types of the unique and mysterious animals that they encountered, and these early trips assisted in classifying and describing many of the species that we know today. That time has long passed and most scientific collection is now done to bolster existing research collections or to help answer specific scientific questions. However, significant collection – both legal and illegal – of reptiles and amphibians still occurs for other reasons.

Many species are collected as pets, both for individuals and for commercial sale. This type of collecting often

has negative impacts on populations, particularly in turtles, and is one of the reasons that we spend a significant amount of energy ensuring the locations of rare and desirable species are not publicized. As a general rule, individuals encountered while herping should be left in the wild where they were found. Collecting animals as pets or as specimens is adding to the loss of individuals that would naturally occur from regular ecological processes (i.e., it is equivalent to a mortality event).

Similar to collecting, moving and relocating animals can have negative impacts on populations and individuals. Many species of reptiles and amphibians have some homing ability and will attempt to return to their original habitats, even if moved long distances. This can expose them to predation or other factors that can result in mortality. To minimize these impacts, animals should be moved as short of a distance as possible if circumstances require an individual to be relocated. Individuals on roads should be released pointing in the direction that they were traveling and not taken to new areas. It is important to remember that wild animals are wild and an important part of natural ecosystems that should be left in their natural habitats if at all possible.

Collecting and Reporting Data

For a group of animals that have a large following and are genuinely sought after by field herpers and scientists alike, it is sometimes shockingly difficult to find accurate and current data pertaining to species locations, estimates of abundance, and activity periods. For example, there are only around 100 records for Spotted Turtles



Bleach



Preparing museum specimens. Photo: Ray Chandler

(*Clemmys guttata*) in Georgia and only about 50 records from South Carolina. Some of these data deficiencies can be attributed to the difficulty in detecting certain species but it can also be hard to find data even for more common species.

There are only around 300 Gopher Tortoise (*Gopherus polyphemus*) records from roadways in Georgia even though hundreds of individuals likely cross roads each year. Overall, a lack of available data regarding wild herpetofauna populations hampers efforts to protect remaining populations and identify areas where

additional conservation action is needed. These issues are highlighted when compared to the substantial datasets that have been collected for birds by citizen scientists.

If a larger percentage of field herpers and even some in the general population recorded and shared data for herpetofauna, it would go a long way towards addressing some of these data gaps that hamper conservation projects. Most states now keep some database for observations of rare species, and there are easy to use apps that are designed to facilitate

the recording of species observations (HerpMapper and iNaturalist). These platforms make it easy to record what species are observed, when they are observed, and where they are observed. Observations of common species are just as good as those of rare species because common species with lots of data points can be used to model the impacts of environmental change. There are real concerns surrounding collection and not revealing sensitive location data as discussed above, however, there are ways to get around this.

Data submitted to online platforms can be obscured so that others cannot see exact locations or data can be submitted to groups working to conserve certain species.

Collecting data from observations while in the field can have other benefits. The publication of many state reptile and amphibian books has made it easier to see which species still need county distribution records. These records are worth a small publication note in *Herpetological Review* (one of the few scientific journals that regularly publishes *Geographic Distribution Notes*). Unfortunately, it is common to encounter dead reptiles and even amphibians on the road while herping or traveling. If these animals are in good condition, they can be collected and donated to museum collections that scientists can then use in research projects. Field herping with an eye towards collecting and sharing data

is a great way for herpers to actively participate in conserving the group of animals that they are passionate about.

The Face of Herpetology

Reptiles and amphibians are often a source of fear and misunderstanding for the general public and few people have had a positive experience with either group. Many people are completely unaware of the dedicated following herpetofauna have. Often their only encounter with a herpetologist comes from meeting that weird person driving 10 mph on a country road or the person wandering around with a flashlight at night in the rain. While working on Eglin Air Force Base, the range police were often fascinated that we were out late at night searching for salamanders. In my experience, people are generally curious to learn that you are searching for animals that they may not even have realized lived in that area.

It is important to remember that even though there is a passionate group of people involved in herpetology or field herping in some manner, it is a relatively small group in the grand scheme of things. Support and understanding from the general public are often needed to make large scale conservation actions happen. A positive interaction with a field herper vs. a negative one could mold someone's perception of herps for the rest of their lives. Public lands often have multiple uses and hunters, fishermen, or hikers are often encountered while herping. In fact, these groups provide an important voice and source of support for public lands. Field herpers are often the face of herpetology to many people in the general public and providing a positive voice for reptiles and amphibians is a crucial role that everyone can participate in. 🦎

Marbled Salamander (*Ambystoma opacum*). Photo: Houston Chandler



With a cold beer at my side and a warm dog at my feet, I write to you, beloved reader, from the Shawnee Hills—the epicenter of biodiversity in America’s heartland. Fall is on the phone with winter here in Southern Illinois, and for the most part, the surface-dwelling herpetofauna have taken their leave of activity above ground until spring.

The Midwest is a largely overlooked and underappreciated region in terms of hiking, herping, or wildlife viewing; although, it’s not for nothin’ at first glance. Unlike many other parts of the country, chances to explore large swaths of contiguous, high quality habitat are slim to none. This region contains the largest concentration of agriculture in the country, producing billions of bushels of corn and soybeans every year. Illinois alone has undergone over a 98% loss of high quality tallgrass prairie. That works out to less than 3,000 acres of undisturbed tallgrass prairie left statewide. Degradation and general loss of habitat is not specific to our grassland ecosystems, however, and unfortunately pervades all existing ecosystems in Illinois. What quality habitat does remain is highly fragmented by roadways in most instances. Species that transition from spring hibernacula to summer foraging and/or gestation sites are often heavily affected by road mortality. Sensitive species like the federally protected Eastern Massasauga (*Sistrurus catenatus*) have been thoroughly crushed under such pressures.



Herping in the Heartland

By Chad Harrison



A Western Mudsnake flipped in a cypress wetland beneath artificial cover completely submerged a few inches under water. Photo: Chad Harrison



Photo: Chad Harrison

A seldom seen Kirtland's Snake flipped under a concrete slab on a Lakeshore in Southern Illinois.

Eastern Massasaugas inhabit wet prairies and fens, and utilize crayfish burrows as hibernacula, not unlike the Kirtland's Snake (*Clonophis kirtlandii*). Where the distributions of these two snakes overlap, they are often sympatric. However, they have responded in radically different ways to the decades of habitat destruction and human encroachment. Kirtland's Snakes are threatened throughout their entire range, and are rarely observed in the wild. Illinois and Indiana support the strongest populations, wherein snakes can be observed with relative reliability if you know where to look. While Kirtland's Snakes certainly prefer the high quality wet prairies and fens, they seem to be doing very well in some of the most absurd habitat imaginable: vacant city lots beneath garbage, roadside ditches, riprap along rivers and creeks, and beneath concrete slabs in manmade lakes. The Orianna Society's very own Ben Stegenga and I managed to turn up a large adult Kirtland's Snake this past September beneath a concrete slab on a lakeshore in Illinois' Southern Till Plain. After a fruitless day flipping, hiking, and cruising through the sandy soils of the Illinois River drainage, we struck gold in a Hail-Mary toss on the way home.

On the western border of the Southern Illinois Till Plain, we have the Karstic Northern Ozarkian River Bluffs. The hills of this region offer a wealth of interesting biodiversity for Illinois. This northeastern extremity of the Ozark Hills brings with it herps and invertebrates that are more typical of Missouri glades and hill prairies, such as Flat-headed Snakes (*Tantilla gracilis*), Great Plains Rat Snakes (*Pantherophis emoryi*), Eastern Coachwhips (*Masticophis flagellum*), and Striped Bark Scorpions (*Centruroides vittatus*). Many of these species are found nowhere else in the state, and it is very likely that the Eastern Coachwhip is extirpated from Illinois. It is represented by 4 total collections from a single county, with the last known specimen coming from 1979.

Bluffs, rocky outcrops, and rocky wooded hillsides are abundant in this region, but the glades and hill prairies are shadows of what they once were. Lack of natural and anthropogenic fire management has allowed the invasive woody plants and cedar trees to encroach and suffocate the open swaths. Though historic decline of populations is

well documented, one of my favorite occupants of this region that remains in sustainable numbers is the Timber Rattlesnake (*Crotalus borridus*). In Illinois, Timber Rattlesnakes are almost totally restricted to the extreme southern counties. The Mississippi River Bluffs support the only sustainable numbers of these snakes outside of these extreme southern localities. However, the further north you travel up river, the less common they become. The exception to this trend lies in the northwestern-most county in the state, where sustainable populations of Timber Rattlesnakes pick back up in continuity with the populations along the Wisconsin section of the Mississippi River Bluffs.

Travel further south and you will eventually find yourself in the Southern Shawnee Hills and the Wabash-Ohio Bottomlands—the home of the northern-most extremity of Tupelo Cypress Swamp in the country. Though many fascinating herps occupy these wetlands, the Western Mudsucker (*Farancia abacura reinwardtii*) stands out among the crowd. Snakes of the genus *Farancia* are royalty of the mesic lowlands. In this part of their range, Western Mudsuckers can be especially difficult to locate. They are the needle in the

hay stack. Sustained physical and/or psychological punishment is likely to be your only experience about which to write home. You struggle your way through the boot-sucking muck and what sometimes seems like a lawless nation of mosquitoes, 9.9/10 times with nothing to show for it. You might say that persistence pays off; I might say that being a relentless lunatic pays off. It's six of one, a half dozen of the other. The point is that when you don't know when to quit, sometimes you find a mudsnake.

Moving westward, you will cross the mighty Mississippi into Missouri. Head a little south and you will work your way into the magnificent Ozark Plateau. The Eastern Ozark Border

A young Timber Rattlesnake found in the Illinois Ozarks in what was once a high quality glade; it is now overgrown and shaded by cedar encroachment.

ecoregion sits on the eastern border of the Ozark Plateau, as you might expect. The herp diversity here is not much different than the rest of the middle Mississippi lowlands. However, in this region, on the northeastern edge of their range, the Ringed Salamander (*Ambystoma annulatum*) can be found. Ringed Salamanders are typically fall breeding salamanders, depositing their eggs beneath logs and within clumps of vegetation to await the rising water levels of their ephemeral wetlands. Interestingly enough, there is a population of these salamanders in the Eastern Ozark Border that exhibits breeding activity in both the spring and fall. I didn't get a chance to see them this spring, so once we started getting some hefty rain in the first week of October, I



An adult Speckled Kingsnake photographed in an open patch between mixed upland hardwood forest and cedar glade.

walked the perimeter of the pool in hopes of seeing some eager breeders on their way to the water, dip-netting along the way to no avail. As our hopes ran dry, the rains came back. I noticed that the raindrops were disturbing the duckweed, and ever so slightly raising the visibility in the pool. I proposed that we road cruise while the rain breaks up the duckweed, and hopefully get some crossing. With two cars making multiple passes in perfect conditions, at least one of us was bound to find one, right? Wrong. An hour of cruising produced not a single herp, and the rain came to a sudden halt with no sign of return. Our company decided to call it a night, but Mike and I are not so easily deterred. We returned back to the pools and retraced our steps; still no signs of life. We had come this far, so we continued to walk around in hopes of catching a newly emerged salamander that detected the rainfall—we ended up doing just that as Mike calls out “I got one! Looks like he just came out of this little hole here.” After

four hours of finding nothing, I could finally exhale.

Crossing into the plateau, you’ll notice a rather sudden change of landscape. These highlands stand tall above the surrounding plains, forming the most charismatic topography in the Midwest. Beneath the tumbling hills of xeric upland sits layers of dolomite and limestone atop an igneous rock layer. The geology of the region is best represented in the expansive glades characteristic of the Missouri Ozarks. Long stretches of exposed flat rocks and outcrops make for prime ectotherm real estate. Herping this landscape can be very physically demanding. Luckily, the herp diversity and density helps one forget about the irreparable damage being done to your precious hands. Speckled Kingsnakes (*Lampropeltis holbrooki*) are always a treat to see, and can be very common on the right glades.

Some of the most high quality glades are nestled deep in the Ozark Highlands near the Arkansas Border. This area is rural, and nestled within it are some of the region’s most beautiful lakes and rivers. It is a hotspot for the Western Pygmy Rattlesnake (*Sistrurus miliarius streckeri*)—another upland dweller after my heart.

Perhaps the most fascinating attribute of the Ozark Highlands ecoregion is the Karst Topography. A Karst system refers to a network of caves, sinkholes, and underground streams that form a subterranean landscape. The limestone and dolomite that makes up the rock layers are water-soluble, which allows for the porosity that creates a Karst system over time. These mysterious passages are teeming with life that thrives in the total absence of light; extreme conditions that force the evolutionary hand and give rise to the truly bizarre. Could there be a more fitting example of this phenomenon than Missouri’s own Northern Grotto Salamander (*Eurycea nerea*)? I really don’t think so.

A freshly emerged adult female Ringed Salamander found moving to an ephemeral wetland after a rain.

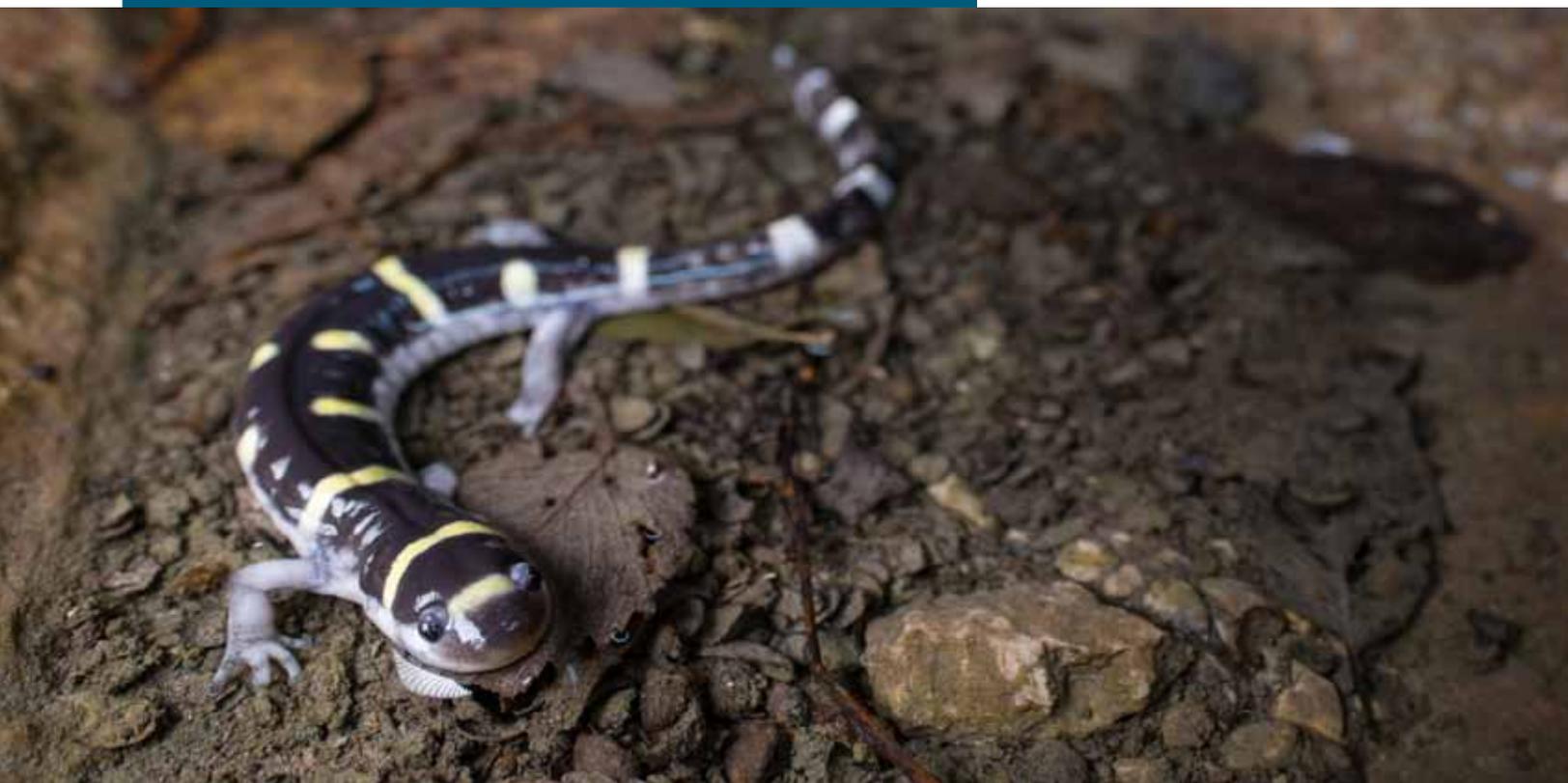




Photo: Chad Harrison

The Northern Grotto Salamander is a troglodytic salamander species native to the Ozark Plateau. Recently removed from synonymy with *Eurycea spelaea* by Fenolio et. al., this species is only found in southern Missouri and a couple localities in northern Arkansas. Like any other troglodytic salamander species, Grotto Salamanders possess all the freak-show bells and whistles: regressed eyes that diminish further into the individual's life cycle, significantly enhanced non-visual sensory systems, and the pale, alien-like skin so characteristic of stygofauna.

here, now, and I will cherish them as I am able.



A fully transformed adult Northern Grotto Salamander sits atop a mineral deposit deep within an Ozark cave system.



Photo: Chad Harrison

When you live where I live, it's easy to lose your hopes and enthusiasms for conservation to the all-consuming colossus of agriculture and development. I'm so lucky that my passion allows me to peak into the alcoves and see a world ripe with biodiversity of which most people are unaware. There is a rich natural history in these lands; and though many of these unique creatures may well be in the autumn of their existence, they are



Photo: Chad Harrison

An adult male Western Pygmy Rattlesnake flipped under a rhyolite slab in an abandoned quarry.

Photo: Chad Harrison

THE POCONOS MOUNTAINS: *Sunrise in Early June*

By Bob Ferguson





American Toad. Photo: Bob Ferguson

Nobody thinks of the Northeast as a herp-mecca. You will not be tripping on two dozen snake species and falling on turtles. Lizards will not be on every branch or exposed rock, and no; underneath those rocks will not be countless species of amphibian. However, there are treasures to be found in and amongst the congested megalopolis that is the Northeast. The herpetofauna and natural heritage should definitely be appreciated.

I may be one of a handful of people who will stand proud and remain loyal to the herps of the Northeast. That said, most herp-aficionados across the country would argue that an entire article could be written on the Northeast states, with some blank magazine page to spare. But it's my hope to change that viewpoint. We have an assortment of LECH's (Lame East Coast Herps) that deserve attention. I'm going to concentrate on one area, with optimism that you the reader can see the beauty in just a small pocket of the Northeast. I have chosen the Pocono Mountains as a quintessential representative of Northeast herping.

Chances are that if you are not from New York City or Philadelphia's metropolis', you have never heard of

the Poconos. This region of glaciated plateau and valley and ridge habitat has been a popular retreat for the outdoor enthusiasts of the region's' major cities and is Pennsylvania's largest tourist destination.

The total area encompasses roughly 2500 square miles and offers myriad different herping opportunities. It is bordered to the south by the Blue Ridge mountain range, to the west by the Wyoming Valley, to the east by the Delaware River, and to the north in the area of Lake Wallenpaupack. Simply view the area on an internet satellite image and follow the green.

So what about the herps I promised were worth the effort? I struggled with how to approach an ideal summary on Northeast herping and do it justice in one short article. Then, I had an epiphany. I will treat these words as if you were a visiting herp-enthusiast asking me to take you on a grand tour of the area in the hopes of encountering as many species as possible. But, I only do things hardcore. So be prepared to wake up early and get home late!

SUNRISE IN EARLY JUNE

We'll wait until a little later in the season for animals

to be moving around, giving us the opportunity to find them anywhere. Early June is perfect. As soon as it's bright enough for us to see, let's head for a lake, 1800 feet up on the Pocono Plateau. A chill is in the air and dew on the ground. As we travel down the gravel road leading to the lake, I'll keep the windows cracked as the breeding warblers greet us with their songs.

We find a hill of dirt and round rock, bulldozed to the side. This disturbed habitat is perfect for finding our first herps of the day. In the five seconds it takes to get out of the car and flip our first Pocono-potato (aka: round rock), the anticipation and excitement builds to a crescendo. You know the feeling... "What will our first herp be? ...a garter, redbelly, ringneck?" We assumed too soon. Before we even turn over a rock, one of us stutter-steps over a brilliantly colored Red Eft (*Notophthalmus v. viridescens*), the terrestrial form of the Red-spotted Newt.

We begin turning over rocks, being careful to put them back as if we were never there and seal in the moisture. There will be a few of these rock piles to inspect before we even get to the lake. Eastern Gartersnakes (*Thamnophis s. sirtalis*), Red-bellied Snakes (*Storeria occipitomaculata*), Northern Ring-necked Snakes (*Diadophis punctatus edwardsii*), and one small Eastern Milksnake (*Lampropeltis triangulum*) still bright with red-blotches are all discovered in the first half-hour of the day. The snakes are slow after the cold nighttime air. Ringnecks easily outnumber every other snake. Their gorgeous yellow ventral scales are a victim of their commonality and often overlooked.

We move on down the road toward the lake. The early morning sun is rising quickly, warming our faces as much as blinding our eyes. Mist floats above the mirrored surface of the lake. More warblers, thrushes, and vireos are active and loud, chasing each other from tree to tree. This particular lake was manmade; dammed up in the 1800's to harvest ice. I chose this particular spot because of all the easy rocks to flip on edge habitat between the forest and field edges.

By the time we work our way down one side of the field adjacent the lake, we have racked up dozens of small snakes under rocks. However, there is one prized gem we yet to come across. We see a group of exposed rocks in the dirt near a creek draining into the lake. Pickerel Frogs (*Lithobates palustris*) launch themselves from the wet grass into the creek and out of our way. We begin turning the rocks. Nothing reveals itself, but invertebrates. We wait for every last roach to scurry and will even annoy the centipedes out of the way to return the rock to its original place.

Although, herps are the main focus of the trip, we must always remember that they are one small piece of the natural ecosystem and all life is to be respected. We move onto the rocks at the edge of an evergreen forest. We flip a plump 8" Spotted Salamander (*Ambystoma maculatum*) and then, another small one. Eastern Red-backed (*Plethodon cinereus*) and Northern Slimy Salamanders (*Plethodon glutinosus*) are also uncovered. Perhaps this spot is too wet for snakes, so we move upland to a small hill.

After flipping a few hundred rocks, we turn a flat one no larger than a saucer and unveil the dazzling, green, jewel of the Poconos – a Smooth Greensnake (*Opheodrys vernalis*). This was the reason to visit this area and after minutes of admiration, we send it on its way and proceed.

By this time, the sun is baking the rocks along the dam and a half-dozen Northern Watersnakes (*Nerodia s. sipedon*) are basking on the edges. In my younger years, I would grab one,



Eastern Box Turtle. Photo: Bob Ferguson





leaving me bloodied and covered in fecal matter. As my herping-career has matured, I leave lying snakes lie, content to take some voucher photos for the Pennsylvania Amphibian and Reptile Survey (www.paherpsurvey.org).

The basking snakes were a sign that we needed to get moving to our next area quickly as the magic-hour was upon us. We blast down the road, quickly realizing our irresponsibility as a porcupine waddles off, startled by our rumbling vehicle. The reminder was perfectly-timed as three miles down the road we are treated to a Wood Turtle (*Glyptemys insculpta*) crossing over the double lines. Fortunately, we are able to grab her in the face of oncoming traffic, enjoy her curious demeanor, and release her far from the road always in the direction she was traveling.

HOG HEAVEN

It's only about 10 AM, but we reek of musk, the sun has warmed the ground, and terrestrial snakes are out and moving. We walk a rocky outcrop with only one snake in mind... an Eastern Hog-nosed Snake (*Heterodon platirhinos*). The plan is to walk and observe, but of course flip any "perfect-looking" rocks. We flip a softball-sized American Toad (*Anaxyrus americanus*) – an indicator of why we are here.

In the brush, there's a rustle. The ensuing moments are both chaotic and meditative. At no other time in my day do I not worry about the stresses of life, then when in pursuit of an animal. ...the outline of a snake-on-the-move slithers through the lowbush blueberry when suddenly it stops and a deep hiss comes from the understory. I place my hand in and slowly pull the perplexed animal from the tangles, being careful not to hurt it or yank its body against the tangles.

Eastern Milksnake as flipped. Photo: Bob Ferguson



Northern Red Salamander. Photo: Bob Ferguson

I move quickly to an open area to place the bumblebee-colored, yellow-and-black hognose down in a hurry before it goes into its death-feign routine. I never wish to stress an animal more than necessary and we all must follow our own moral-compass in this game. We are all evolving, and hopefully for the better. Anyway, we were rewarded with an impressive hognose puffing, hissing, and posing for beautiful photos and more importantly, memories, without the possibility of it vomiting up its last meal. Victory!

We continue on to find two more beautiful hogs, flip two adult earth-toned milksnakes, and get tagged on the hand by a defensive Northern Black Racer (*Coluber c. constrictor*) we cornered in between some boulders. We could go home happy and it's barely noon!

IT'S GETTIN' HOT IN HERE

After a disappointing attempt at washing the smell of musk from our hands and a quick lunch, we arrive at possibly my favorite spot to herp in the Poconos. We will spend the next few hours simply walking, observing, and listening. The weather is almost perfect - about 80 degrees; too hot in the sun for serpents, but perfect in the shade or tall grass. Snake nirvana...

We walk along the outcrops down a long path. We could walk for miles, but we take our time. While staring at rusty-colored outcrops, an Eastern Copperhead (*Agkistrodon contortrix*) materializes like a ghost amongst the rock, sitting like a stone wall the entire time! Moving in for a closer look, a slight movement catches our eye just as we realize we were about to lean on another copperhead that twitched its head as we approached! Dodging that bullet is a lesson to never become complacent

and always respect the animals and their home.

An hour later, we have turned up more copperheads, four Eastern Ratsnakes (*Pantherophis alleghaniensis*), a red-eyed male Eastern Box Turtle (*Terrapene carolina*), another hognose, a huge gartersnake, flushed a Ruffed Grouse, and even spooked a Black Bear into running up the mountainside. Five-lined Skinks (*Plestiodon fasciatus*) were omnipresent.

We come across some large boulders and carefully tiptoe around them. Pssshhhh... the sound of a car tire with a nail in it comes from the shaded ground below a boulder. Two Timber Rattlesnakes (*Crotalus horridus*) lie in front of us, buzzing in unison and warning us of their presence; "emblems of vigilance and magnanimity" – Ben Franklin. One was a golden-headed yellow-phase and the other, a jet-black, black-phase. Both are females and it appeared we may have stumbled upon a rookery site. We capture quick photos, enamored by the best the Northeast has to offer, and move on hastily. The expectant Mothers have a new generation to grow and as responsible naturalists, we should not get in their way.

During the heat of the day, we flip some salamanders in a cold Pocono creek, the prizes being a glowing

Northern Red Salamander (*Pseudotriton r. ruber*) and huge Northern Spring Salamander (*Gyrinophilus p. porphyriticus*). When the sun drops below the horizon of the imposing mountain, some snakes should re-emerge and we find a handful more on our hike back to the car – multiple ratsnakes, copperheads, and two additional timbers.

As noted, the Northeast may not be herp-paradise, but in one long day, you can in fact experience diversity, quantity, and a plethora of beautiful animals. Our small corner of the world holds its own with the charm of its natural environment and mesmerizing fauna.

Now it's time to head home, share our photos and stories, and educate the public on these misunderstood animals. Differences in perception can be made on any level, be it word of mouth, social media, public outreach, or whatever our platform may be. Our simple photo of a rattlesnake in a positive light could inspire the next great conservation-hero. Never underestimate the domino-effect we can create. The day has been an overwhelming success, and hopefully the future for these animals can be too! It is up to us to accept that responsibility and give back to the animals we love. 🌿

Timber Rattlesnake. Photo: Bob Ferguson





Herping

the Trans-Pecos

By Noah Fields

Texas Horned Lizard on a grasslands road. Photo: Stephen Falick

In the United States, there are several “bucket list” destinations that attract dozens of field herping enthusiasts and other naturalists alike from around the world to admire the local biodiversity, scenery, and culture. Undoubtedly, seasoned herpers are among the only groups of people on earth who are likely to know what both “Robert Is Here” and “Cow Dog” are (both excellent pre-herping snack stops in the Florida Everglades and West Texas respectively) or the meaning of “hiking stumps” or “shining cuts”. It is no coincidence that certain areas occasionally draw frustratingly large crowds of field herpers: these places are among the most herpetologically diverse in the world and are home to some of the nations most beautiful and impressive animals. No other place I’ve been fortunate enough to visit exemplifies the ingenuity and quirks of herper culture in a scene of unrivaled beauty and fascinating biodiversity quite like the Trans-Pecos region of West Texas. With emphasis on quirks, this region is vastly different from the rest of the nation and for first-time visitors, especially herpers, it can be a lot to take in!

The Trans-Pecos region of West Texas is a rather loosely defined area, but generally refers to the portion of West Texas that lies mostly west of the Pecos River in habitats characteristic of the Chihuahuan Desert. With vast expanses of empty highways dotted with small towns, most human activity in the region is centered around the cities of Alpine, Fort Davis, and Marfa that form a triangle in the heart of West Texas and along the I-10 corridor along the northern extent of the region. Alpine, home to Sul Ross State University, is the largest city in



the region (with the exception of El Paso over 200 miles to the west on the New Mexico border) and is the last stop for fast food and reasonably priced gas for tourists visiting Big Bend National Park and Terlingua to the south. Many herpers who visit West Texas either establish home base in Alpine to herp the comparatively lush Davis Mountains, or choose to stay in Sanderson 80 miles to the east at the Outback Oasis Hotel that is owned by fellow herpers Roy and Ruth Engeldorf. Some brave the uncomfortable heat of the southern Big Bend Region along the River Road that runs only a few yards from the Rio Grande and Mexico, and others venture to the easternmost reaches of the Trans-Pecos in the vicinity of the Pecos and Devil’s Rivers. Among these more popular areas for naturalists and herpers lie dozens of hidden gems: small mountain ranges, obscure ghost towns, State Parks, and Wildlife Management Areas. Vast tracts of private ranchland separate the publicly accessible property creating the illusion that this massive region is smaller than it really is. Even still, with so many

options for where to herp, you’d think the chances of running into someone you know on top of a mountain, in a canyon deep in the Davis Mountains, or at McDonalds in Alpine would be pretty slim, right? Wrong.

Herper culture is everywhere in West Texas, so much so that the hardware store in Alpine sells snake hooks. Each summer, dozens if not hundreds of herpers from across the globe flock to West Texas in pursuit of serpents. Most have a bad case of tunnel vision, with their pursuits justifiably focused on locating one particularly elusive and beautiful snake: the Gray-banded Kingsnake (*Lampropeltis alterna*). Gray-banded Kingsnakes are mostly nocturnal, with very few documentations of diurnal activity. These bug-eyed snakes can vary anywhere from almost solid black to the popular “Blair’s Phase” with wide vibrant orange bands on a gray background. Almost everyone who comes to West Texas revolves their trip around seeing one of these secretive serpents, and very few are lucky enough to find one. Many like to keep them as

pets, collecting different localities to breed and give or sell to friends, while others simply enjoy the adrenaline rush of seeing an elusive and vibrant snake in their flashlight beam only to release it a few moments later. Some people have gone their whole lives without seeing an alterna, while others find multiple in one night, but no one will say that these snakes are easy to find. Most target them by shining road cuts (man-made rock faces in hilly or mountainous terrain caused by blowing the rock away for the creation of highways) at night. Alterna are strongly associated with rocky habitat that has numerous deep fissures, and road cuts in hilly areas can provide a peek into what goes on underground in otherwise rather featureless habitat such as that in the vicinity of the town

of Langtry. Despite looking almost similar from the perspective of a car to the sandy grasslands found further west in the Trans-Pecos that harbor no resident alterna and have little to no rock, extensive fractured limestone exists underground here and alterna are found potentially in greater numbers than anywhere else. In other parts of their range, such as the Chisos and Davis Mountains, Gray-banded Kingsnakes inhabit stunning sky islands with comparably mild temperatures that rise up out of the harsh desert below. Rocky areas in the lower desert are also home to alterna that can prove especially difficult to find. Like other *Lampropeltis*, Gray-banded Kingsnake activity is strongly tied to moisture, and in the Chihuahuan Desert this presents a rather obvious issue. On

average, the Chihuahuan Desert collectively receives less than 10 inches of rain per year. Luckily, the rain is rather predictable and falls almost entirely during the summer months largely due to the monsoon season that brings almost daily thunderstorms to the region from July through September. However, it is commonly believed that these snakes prefer not to move in the rain or when the ground is soaked from a recent rain. Truthfully, no one has pinned down exactly how to reliably find alterna but people have had staggering success by following rain patterns which vary seasonably between localities. Generally, the eastern Trans-Pecos region gets rainfall earlier in the season in late May and early June making this a popular time to hunt alterna there.

Rock Cut in the Davis Mountains as a summer Monsoon rolls in. Photo: Noah Fields





The Pecos River High Bridge near Langtry Texas. Photo: Ben Stupavsky

On the other hand, the far western Trans-pecos may not get any rain until the monsoon season arrives in July. Adapting to the current weather and reading the climate of where you are looking for alterna can be your best friend when targeting these mysterious snakes, aside from old fashioned good luck!

While Gray-banded Kingsnakes are certainly the snake that draws the most people to West Texas, the region is far from being a one-trick pony. The herp diversity in the region offers something for everybody! The Trans-Pecos is home to two more Lampropeltis: the Desert Kingsnake (*L. splendida*) (which is commonly found in the Desert Grassland habitats where one is extremely unlikely to find alterna), and the taxonomically unstable local

Milk Snake (*L. triangulum*) (which can be found in virtually any habitat in the region with the exception of the harshest and driest desert, but is common nowhere). The region is also home to six species of Rattlesnake, at least 5 of which can be found on the same road in a few special places. The ever present Western Diamondback Rattlesnake (*Crotalus atrox*) dominates all habitats, and the Mojave Rattlesnake is found in equal numbers in many areas in the central and western Trans-Pecos. Prairie Rattlesnakes (*C. viridis*) and the elusive Desert Massasauga are restricted largely to the intact grasslands of the central and western Trans-pecos. In rocky areas likely to harbor Gray-banded Kingsnakes, the beautiful Ornate Black-tailed Rattlesnake (*C. molossus*) and Mottled Rock Rattlesnake (*C. lepidus*) can be

found. Another subspecies of Rock Rattlesnake (*C. lepidus*), the Banded Rock Rattlesnake (*C. l. klauberi*), is found only in extreme West Texas in the vicinity of El Paso, an area that hosts an unusual conglomeration of species more typical of southern Arizona and New Mexico alongside most of the typical Trans-Pecos species. Alongside the impressive Rattlesnake diversity, venomous snake enthusiasts can hope to encounter seemingly out of place Trans-Pecos Copperheads (*Agkistrodon contortrix pictigaster*) (recently lumped in with Broad-banded Copperheads) and Texas Coral Snakes (*Micrurus tener*), both of which are tied to closely to habitats that maintain surface water or get atypically high precipitation for the region. For the Ratsnake enthusiast, the unique and aptly named Trans-Pecos Ratsnake ranges throughout

the region and up into southern New Mexico. Commonly referred to as “subocs” by local herpers, their interesting scientific name (*Bogertophis subocularis*), striking pattern, calm disposition, comically large eyeballs, and status as the only United States representative of their genus make them a popular and commonly found target of visiting herpers. Lucky snake hunters in the southern Big Bend region could encounter the coveted “Blonde” morph, a naturally occurring anomaly where the bold striping along the back is mostly or completely absent resulting in a stunningly solid creamy gold to white snake. For the herpers who enjoy the more unusual snakes, West Texas is home to the largest centipede eating Tantilla in the United States: the Trans-Pecos Black-headed Snake (*Tantilla cucullata*). Like alterna, these snakes are bizarrely secretive and have stumped some herpers hoping to see them while others find them semi-regularly. For readers who have seen Tantilla in other parts of the nation, imagine finding one that is over two feet long and as big around as an adult’s finger, capable of subduing

and eating the massive Scolopendra centipedes that can grow to over 8 inches long (about the size of the rest of the United State’s Tantilla species)! If you’re a well rounded herper that enjoys finding legged species too, the Trans-pecos is home to an impressive lizard diversity and, surprisingly, a number of fascinating amphibians. Three species of Horned Lizard inhabit West Texas and are popular bycatch while looking for diurnal snakes: the Greater Short-horned Lizard (*Phrynosoma hernandesi*), Round-tailed Horned Lizard (*P. modestum*), and the charismatic Texas Horned Lizard (*P. cornutum*) that can be found on most roads through open grasslands in the mornings and late afternoon. Of all the lizards in West Texas, perhaps the most fascinating is the Reticulated Gecko (*Coleonyx reticulatus*). These ghostly pale lizards were described to science as recently as 1958, and spend most of their time underground. Twice to three times the size of the more common Texas Banded Gecko (*C. brevis*), these comparatively large lizards are restricted to the southern Big Bend region in the United States and have

been documented only in several far disjunct populations in Mexico to the south. Of the amphibians native to West Texas, the Barking Frog (*Craugastor augusti*) stands out as the most unusual and sought after by herpers. These medium sized frogs are larger than a Leopard Frog (*Lithobates sp.*) but smaller than a Bull Frog (*L. catesbeianus*) and were once thought to be exclusively crevice dwelling frogs from the limestone of the Texas Hill Country and eastern Trans-Pecos. Interestingly, a population in the grasslands of the central Trans-Pecos appears to be living and potentially breeding in Prairie Dog burrows!

This only covers the tip of the iceberg of herp diversity in the Trans-Pecos, and the diversity is only a small part of the appeal of West Texas for field herpers! On a good night in the right places at the right time of year, it would not be unheard of to encounter over 50 snakes in a few hours of cruising, mostly Rattlesnakes. Under the right conditions, flipping artificial cover can produce armfuls of the vibrant pink Western Coachwhips famously found in the Big Bend region. The sunsets in the region are among the best in the nation, and the night sky over West Texas is one of the darkest in the United States making for incredible nights spent under the stars. Watching a monsoon season thunderstorm roll over the grasslands from high in the Davis Mountains is one of the best ways to kill time waiting for darkness to fall to shine cuts. Regardless of whether you’re chasing a rare kingsnake or just an East Coast herper looking to venture west and see new species, a trip to the Trans-Pecos is sure to be one you’ll never forget! 🦎



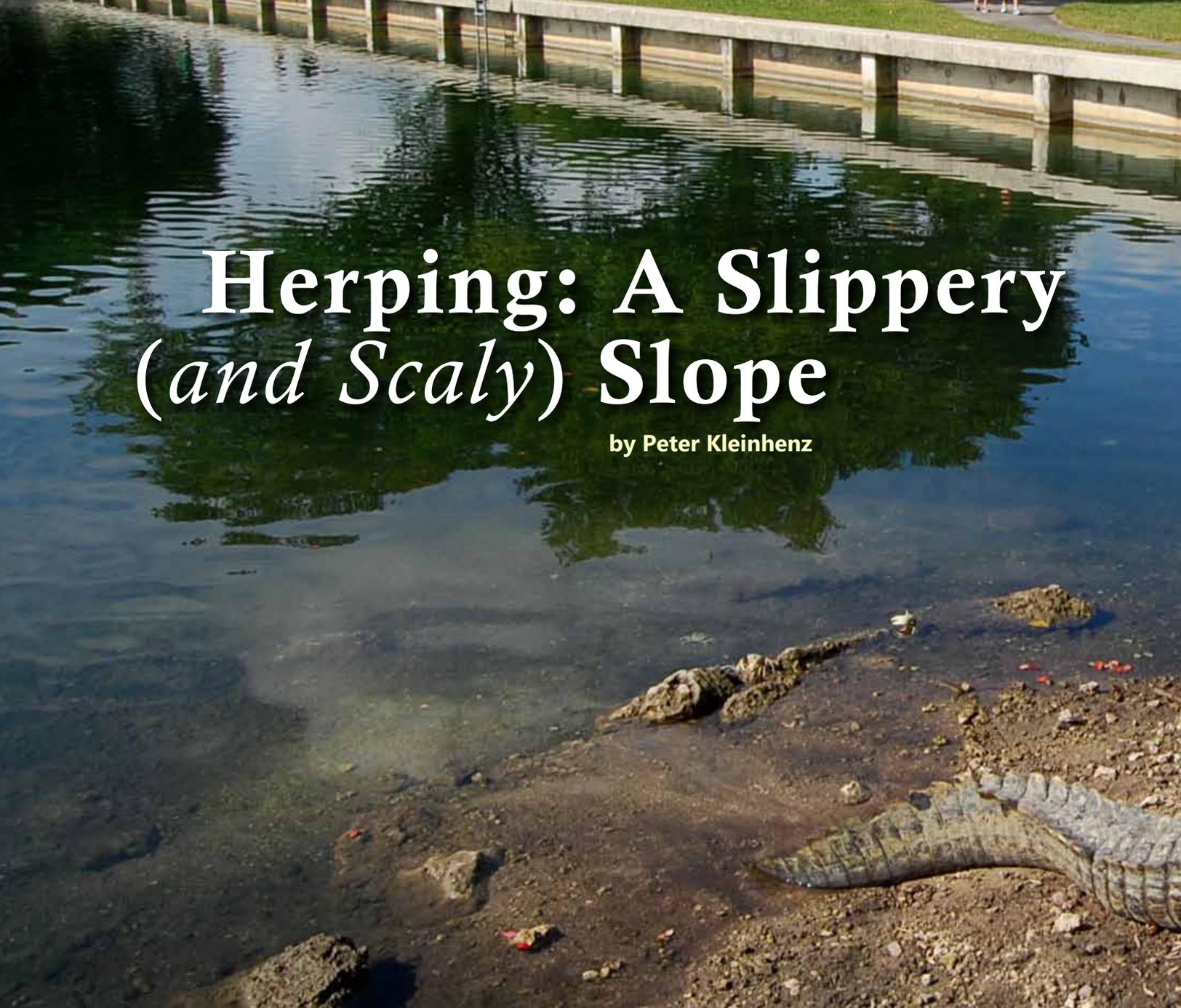
Alterna Phase Gray-banded Kingsnake. Photo: Noah Fields



Blair's Phase Gray-banded Kingsnake. Photo: Noah Fields



Mottled Rock Rattlesnake from a region where the rock is predominately Limestone. Photo: Noah Fields



Herping: A Slippery (*and Scaly*) Slope

by Peter Kleinhenz

Photo: Peter Kleinhenz

I thought that writing this article would be easy and now I'm sitting here at my computer, looking at too much white space. It isn't that I'm short on ideas or at a loss for words. The fact is that I can already feel emotion getting the best of me and I fear its inevitable creep into the text that follows. In many ways, this mirrors my attitude towards herping these days. I often brim with excitement, only to be overtaken by negativity once I get started. Isn't this supposed to be fun?

Well, yes. By definition, herping equates to a good time. Herping, at its core, consists of spending time locating wild reptiles and amphibians. Simple. But, when I stop to think about it, there's more to the hobby than this. Really, it's a three-part process and it is elements of these processes, and not the "main attraction", that I believe introduce the problematic aspects.

First, the target species must be researched. What habitats does it

prefer, what is its range, and what time of year gives the best chance to find it? You might scan websites, visit the library, or even send anticipatory messages to that herper you met that one time to get some hints. For some, this is the fun part and, for others, it's a necessary chore.

Next, one must search. Often, rocks and logs must be turned over, roads that didn't seem to have so many potholes last time must be driven, and



As their homes shrink, reptiles and amphibians are forced to make use out of any habitat they can find.

searching for the most frightening abandoned buildings imaginable must happen. Herping, as a result, frequently takes you to places you never thought you'd go. I've been threatened at gun point, followed late at night on a Mississippi backroad, and chased by a pack of wild dogs all in the name of finding some animals to photograph. No wonder more people don't get into this hobby.

For most of us, the final step of herping involves sharing our finds. This is the step that can engage others. This is the step that can contribute to an improved understanding of species distribution. This is the step that can save species. This is also the step that can destroy them.

When these steps happen with the right intentions, incredible things

occur. The sheer number of people looking in new places may result in new county records or confirmation of occurrences in historic localities. Sharing sites, and the species that inhabit them, with new audiences may inspire them to care about the conservation of a species they weren't aware existed previously. Even spending time on Southeastern back roads increases the likelihood



Photo: Peter Kleinhenz

Frequent off-trail forays by herpers at this site resulted in signs such as these and the installation of security cameras.

of interacting with people who may not think the same way we do about herps. These are people that, through thoughtful communication, can be persuaded to love rather than loathe our reptiles and amphibian friends.

A breakdown of any step, however, causes the dark shadows of herping to come into the light.

Many of us have seen the expediency with which the herping community jumps down the throats of people new to the hobby who post messages such as, “Hey, does anyone know of any good salamander spots in North Florida?” Why? Well, the fact is

that those of us who have those spots put in a lot of work to get them. We either put in time researching or time building trust with more experienced herpers than us. We don’t want others to take the easy road because we see what happens when they do. Let me explain what that looks like.

Last winter, I visited a site that I was shown years ago west of Tallahassee. Many know the site for its exceptionally-large pond cypress tree but herp-aficionados know it for the many salamander species found there. I visit the site only once or twice a year so as not to damage the fragile, moss-covered seepages that emanate from

a slope above a floodplain. Normally, the site looks as pristine as the first time I saw it. Not so the last time I arrived.

Sphagnum moss had been torn off of logs and left drying in clumps, seemingly in a frantic and idiotic attempt to unveil a four-toed salamander. Large logs under which I had previously seen red salamanders and three-lined salamanders had been turned upside down, their normally mossy tops resting in the muck. Footprints followed the sensitive seepage edges all the way to the point where water trickled out of the hill. The habitat looked like hogs had just

been through it, but if the hogs had been wearing shoes.

Clearly, word about the site had gotten out and gotten out to the wrong people. These people wanted to find salamanders. Period. These people clearly didn't know how sensitive the site is, or they didn't care. Either way, they put numerous species at risk for the bragging rights of being able to say they found them (if they were so lucky). These visitors, if they had to work for access either through research or through building trust of local herpers, likely would not have

behaved this way.

I pondered the issue of ethical herping further on a recent drive. Driving amidst fragmented sandhills in a highly-developed region outside of Jacksonville, herps and their long term prospects were on my mind.

Here I was, driving sixty miles-an-hour down a road with dozens of other cars doing the same. The highway, it seemed, was like a decrepit footbridge over a canyon, with enemies pointing weapons at both sides. Any eastern diamondback rattlesnake or indigo

snake that desired a mate or territory across this highway had to leave its patchy, fire-suppressed habitat in order to make a crossing that it would be unlikely to survive. Sadly, a large snake makes an irresistible target for many drivers and that's if the snake hasn't been hit accidentally already. If, by some miracle, our slithering hero makes it to the other side, it must find appropriate habitat in a network of developed land and avoid people at all costs. Add in natural limitations like prey availability and predators, and you get a scenario that seems to be reducing snake populations across the

When even slow-moving, large turtles don't make it across the road, it makes you wonder how much else perishes.

Photo: Zach Cava





Photo: Peter Kleinhenz

Herping Fail - Logs should always be put back after being rolled over. I came across dozens like this near a salamander breeding pool.

board.

How does this little anecdote relate to ethical herping? You, reading this, are a critically-important advocate for our scaled and slimy friends. Let's face it; most people despise at least some of the creatures that we love so dearly. We care enough about these animals to support organizations like The Orianne Society. We obsess over these animals enough to justify expensive,

sleepless trips across the country to see them. Many of us who work in the natural resources field sacrifice the prospect of a solid financial future to better understand these mystifying pieces of our natural heritage.

As such, we should never be the ones making the situation worse for reptiles and amphibians. We don't have to turn every log and rock we see, and we should certainly put those we flip back

into their proper position. Perhaps we can take advantage of opportunities, such as Places You've Never Herped, to search for threatened species in new places rather than disturb that same old timber rattlesnake den site. Finally, in a climate of declining populations across the board, maybe we don't need to collect one more southern hognose snake and, instead, could help it across the road.

One powerful experience with a snake, such as this Kirtland's snake, can transform perspectives on these scaly creatures.





Photo: Peter Kleinhenz

We each have the potential to turn encounters like this into a “wow” moment for those around us.

Look, nobody is the perfect herper. Though I've never collected, I own up to the fact that I've disturbed the habitat of sensitive species, shared sites with people that did not earn my trust, and bothered populations that were hanging by a thread. I'll bet, if you were truly honest with yourself, that you have too. We can't change the

past but we can control our future.

Instead of existing as the weird cousin of birding, herping can take the lead in terms of ethics and conservation potential. We pursue species perfectly suited to education, as anyone who has participated in reptile or amphibian outreach can attest to. Therefore, our hobby

provides unique opportunities to sway people from hatred to love. Species such as the eastern hellbender signify pristine ecosystems and can serve as the posterchild for the protection of entire river systems. Here in Florida, for instance, sea turtles have helped many beaches maintain their wildness through onslaughts of development.

Each one of us could improve understandings of species distributions too, if we chose to. Due to the propensity of many herps to exist in the same places throughout their lives, our novel locality records can save species if we use apps such as iNaturalist or Herpmapper when we are out and about. To me, and many that I herp with, finding new populations has become much more of a worthy challenge than locating lifers in places where they are known to occur. Again, think about what you can do to help rather than hinder populations.

I may have fallen into my own trap. I fear that I let emotion take over. But I may be confusing emotion with passion. When I watch a frosted flatwoods salamander crawl towards a pond, stare into the eyes of an eastern diamondback rattlesnake coiled in strike position, or am deafened by the sound of a surrounding frog chorus, it is impossible not to be moved. I know that you, reading this, know what I'm talking about. It's that feeling that drives us forward to spend more time, money, and effort locating animals that most people avoid.

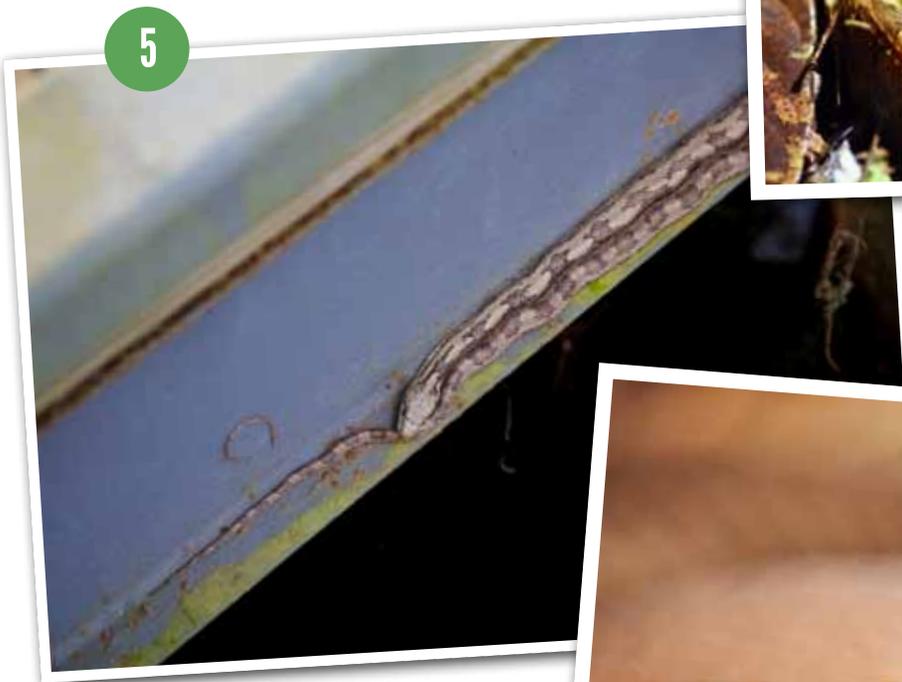
Next week, I'm going to spend a full day searching for rim rock crowned snakes for the second time with my best friend. We've done the research on potential localities. We will flip and put back so many rocks. We plan to share any notable finds we have with Florida herpetologists. We will probably fail to find much of anything. But we are going to try. We are going to try to find this obscure species, try to have an amazing time doing it, and try to do the right thing. This, I think, is what it's all about. 🌿



Photo: Peter Kleinhenz

Herping takes you to all kinds of interesting places, like this yard in Cave Springs, Alabama.

Field



photos

4



3



7



- 1. BEN OCONNOR**
Eastern Kingsnake
- 2. KEITH MARTIN**
Rainforest Hog Nose Viper
- 3. OLIVIA THOMAS**
Gopher Tortoise
- 4. RACHEL RUDEN**
Western Fox Snakes
- 5. BROOKE ROBERTS**
Grey Rat Snake
- 6. MICHAEL PERRY**
Coachwhip
- 7. LUKE SMITH**
Pig Frog

UPCOMING events

February 2019

LEARN AND BURN

Orianne Indigo Snake Preserve
Telfair County, Georgia

SOUTHEASTERN PARTNERS FOR AMPHIBIAN AND REPTILE CONSERVATION ANNUAL MEETING

February 14-17
Black Mountain, North Carolina

SOUTHEAST WILDLIFE EXPOSITION

February 15-17
Charleston, South Carolina

THE SECRET LIFE OF VERMONT'S REPTILES AND AMPHIBIANS

February 22
*North Branch Nature Center
Montpelier, Vermont*

NORTHWESTERN PARTNERS FOR AMPHIBIAN AND REPTILE CONSERVATION ANNUAL

Meeting - February 25 - March 1
Grand Mound, Washington

March 2019

CLAXTON WILDLIFE AND RATTLESNAKE FESTIVAL

March 9-10
Claxton, Georgia

April 2019

UNIVERSITY OF GEORGIA DAY ON THE LAWN

April 25
Athens, Georgia

 = The Orianne Society
will be participating

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We don't underestimate the power of word of mouth when it comes to letting people know about our work and the ways they can contribute! Please consider sharing this magazine with others who have an interest in conservation, and follow us on Facebook, Twitter and Instagram.



PLAN YOUR GIVING

Don't just plan for your future—plan for the future of reptiles, amphibians and the great places they inhabit. Whether you prefer to set up an annual donation or a deferred gift, we can work with you to determine what you want your gift to support and how it will benefit these amazing animals and landscapes. Please contact us at info@oriannesociety.org or 706-224-1359 for more information about our planned giving opportunities.



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Eastern Milksnake

Lampropeltis triangulum triangulum

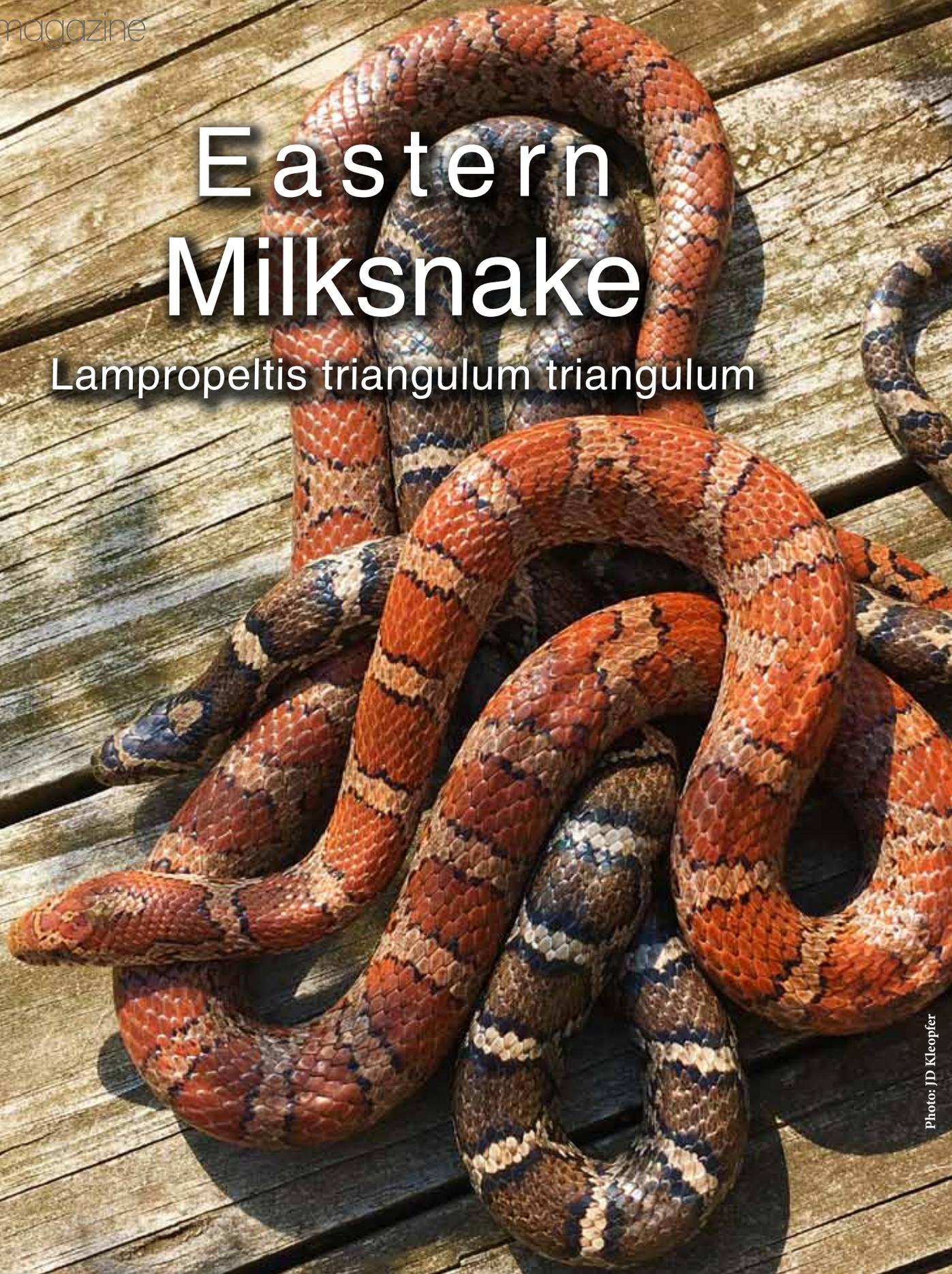


Photo: JD Kleopfer